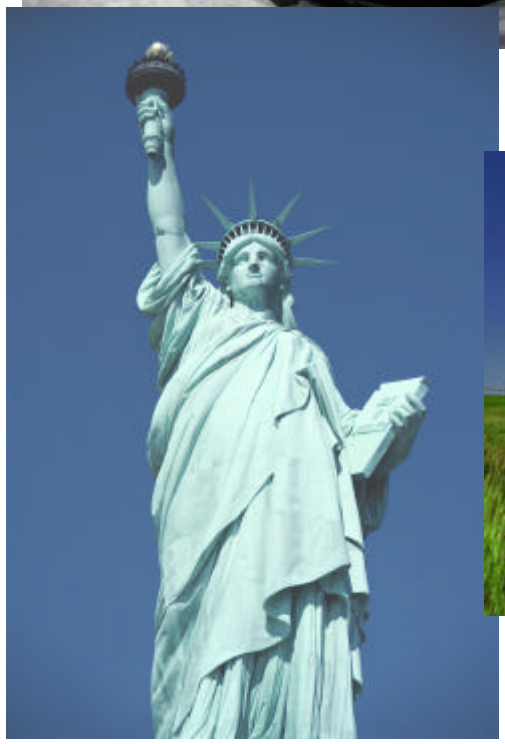
Strength Through Science

FY 2001 Energy Efficiency and Renewable Energy Budget



The FY 2001 Budget Request Energy Efficiency and Renewable Energy

February 7, 2000

Dan Reicher
Assistant Secretary

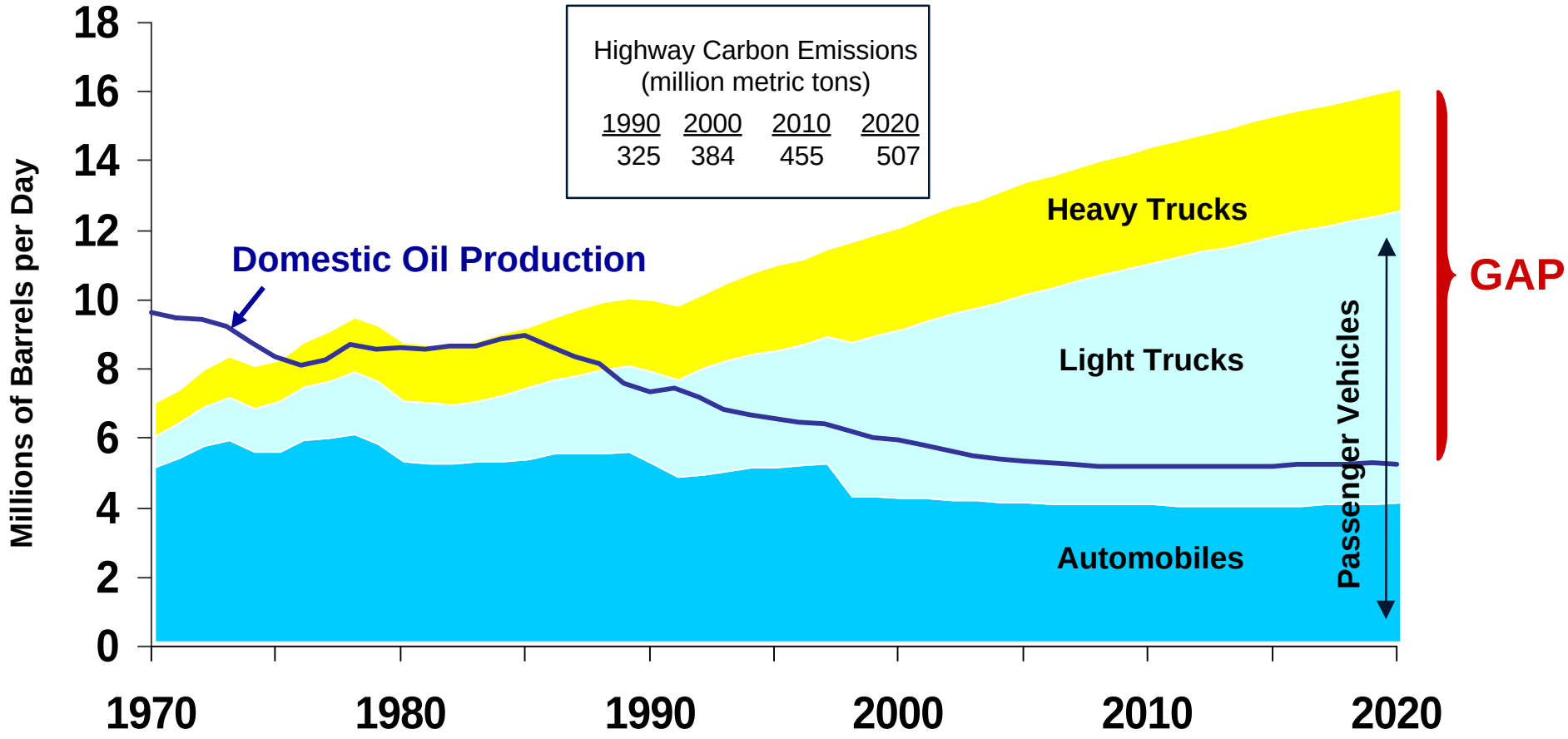
EERE Mission

To lead the nation in the research, development, and deployment of advanced energy efficiency and clean power technologies and practices, providing Americans with a stronger economy, healthier environment, and more secure future.

Drivers

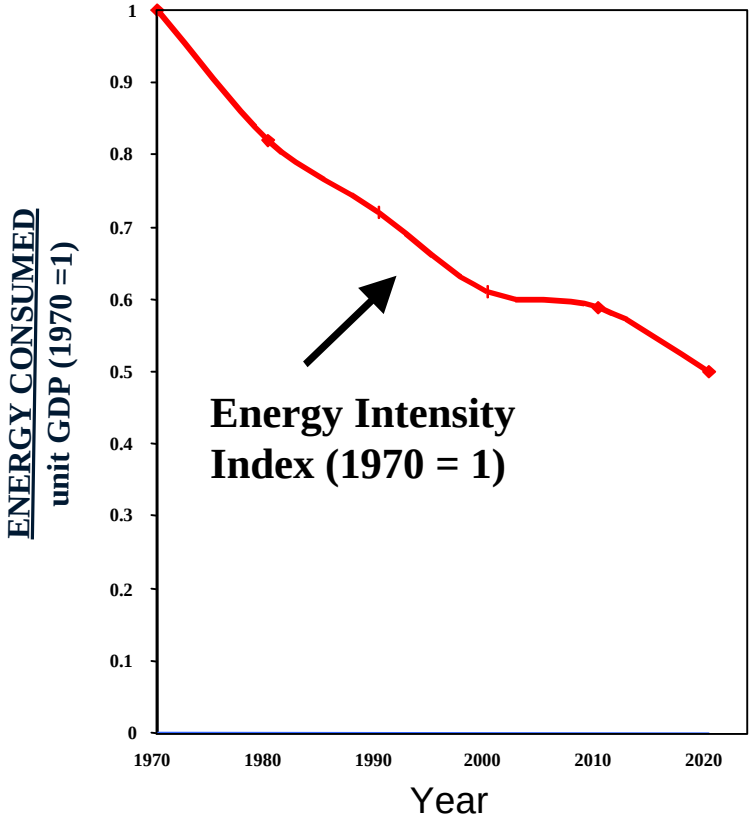
- Energy Security
- Climate Change
- Air Emissions
- Electric Utility Restructuring
- The Bottom Line

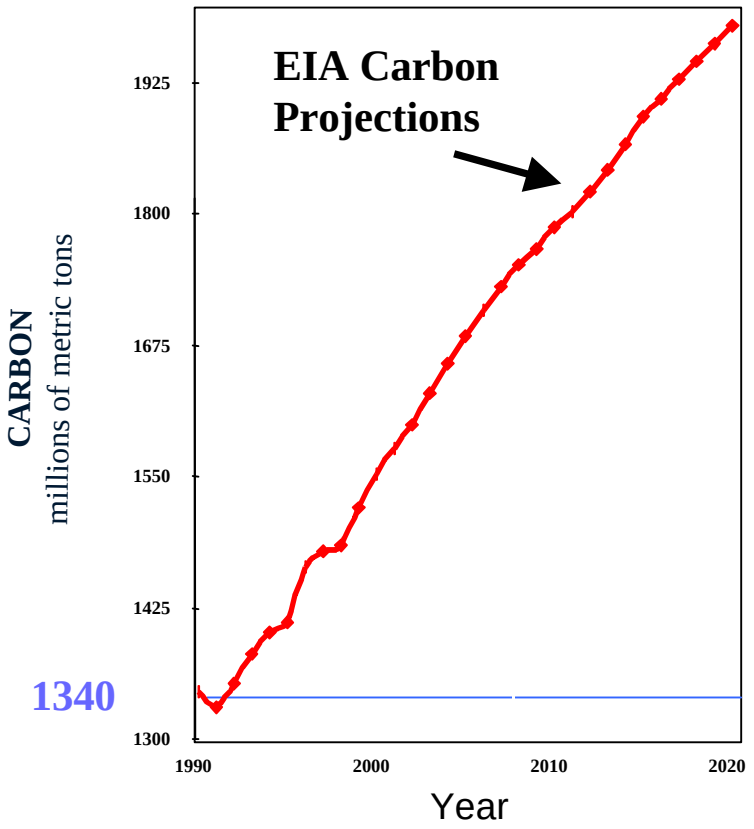
Key Driver – Energy Security



Source: Transportation Energy Data Book: Edition 19, DOE/ORNL-6958, September 1999, and EIA Annual Energy Outlook 2000, DOE/EIA-0383(2000), December 1999

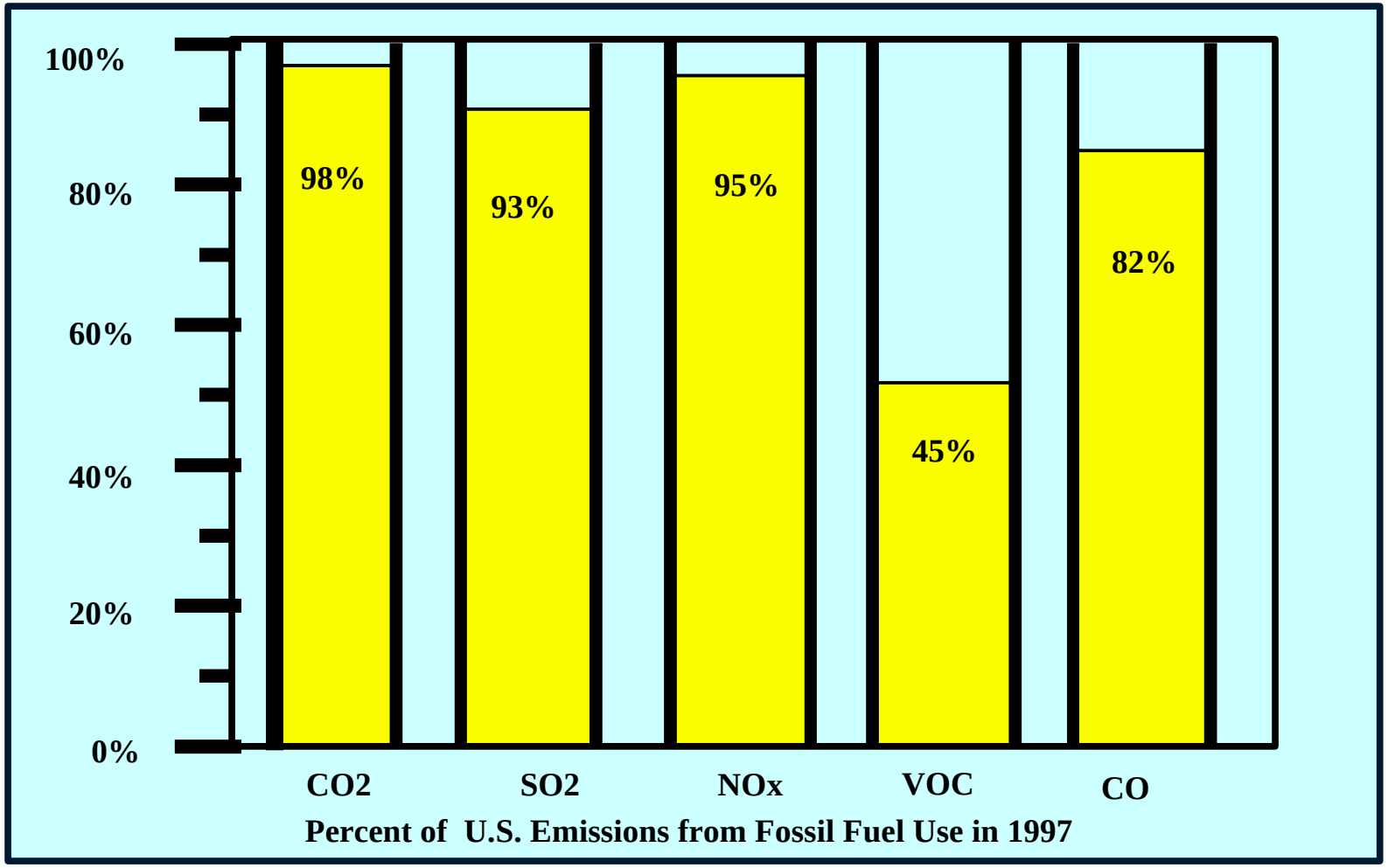
Key Driver - Climate Change





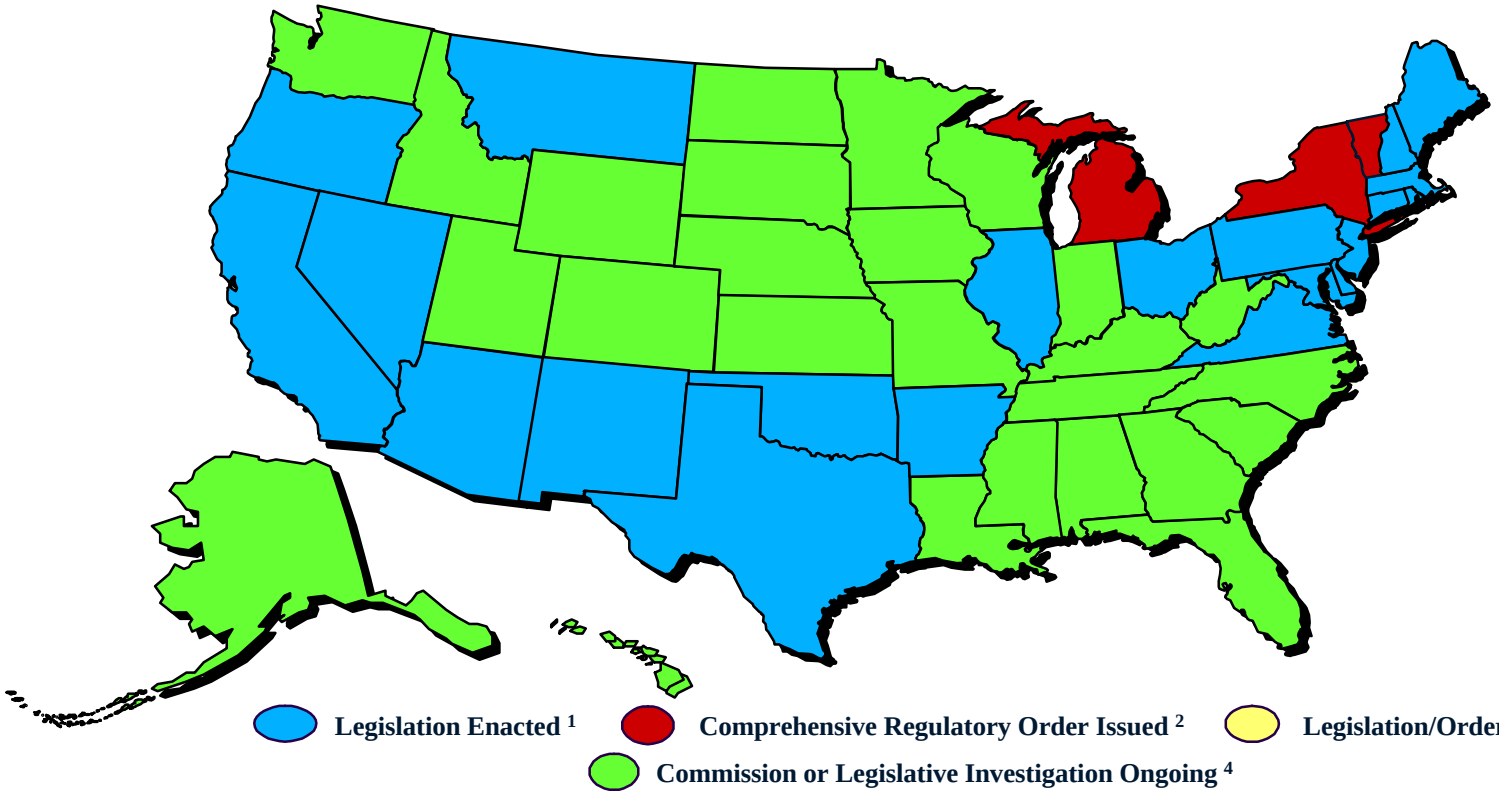
Sources: Energy Information Administration 2000 Annual Energy Outlook

Key Driver - Air Emissions



Source: 1997 EPA Emissions Trends Report and EIA 1998 Emissions of Green House Gases in the U.S.

Key Driver - Electricity Restructuring



Alabama, Alaska, Colorado, District of Columbia, Florida, Georgia, Hawaii, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, South Carolina, South Dakota, Tennessee, Utah, Washington, West Virginia, Wisconsin, and Wyoming.

Source: EERE/EIA 1999 State-by-State Utility Restructuring Database

EERE Program Accomplishments

- Buildings: Consumer energy cost savings totaling more than $40 billion since 1978
- Industry: More than 120 energy savings technologies in market; saving $2.1 billion in energy costs since 1985
- Transportation: Truck and automobile fuel efficiency technologies have saved consumers more than $25 billion since late 1970s
- Power: Renewable energy costs down 80% since 1980; over $30 billion in U.S. renewable energy sales since late 1980s
- Federal: Reduced Federal energy costs by more than $6 billion since the mid-1980s; established $5 billion in energy savings performance contract authority

Wind Energy Getting Cheaper

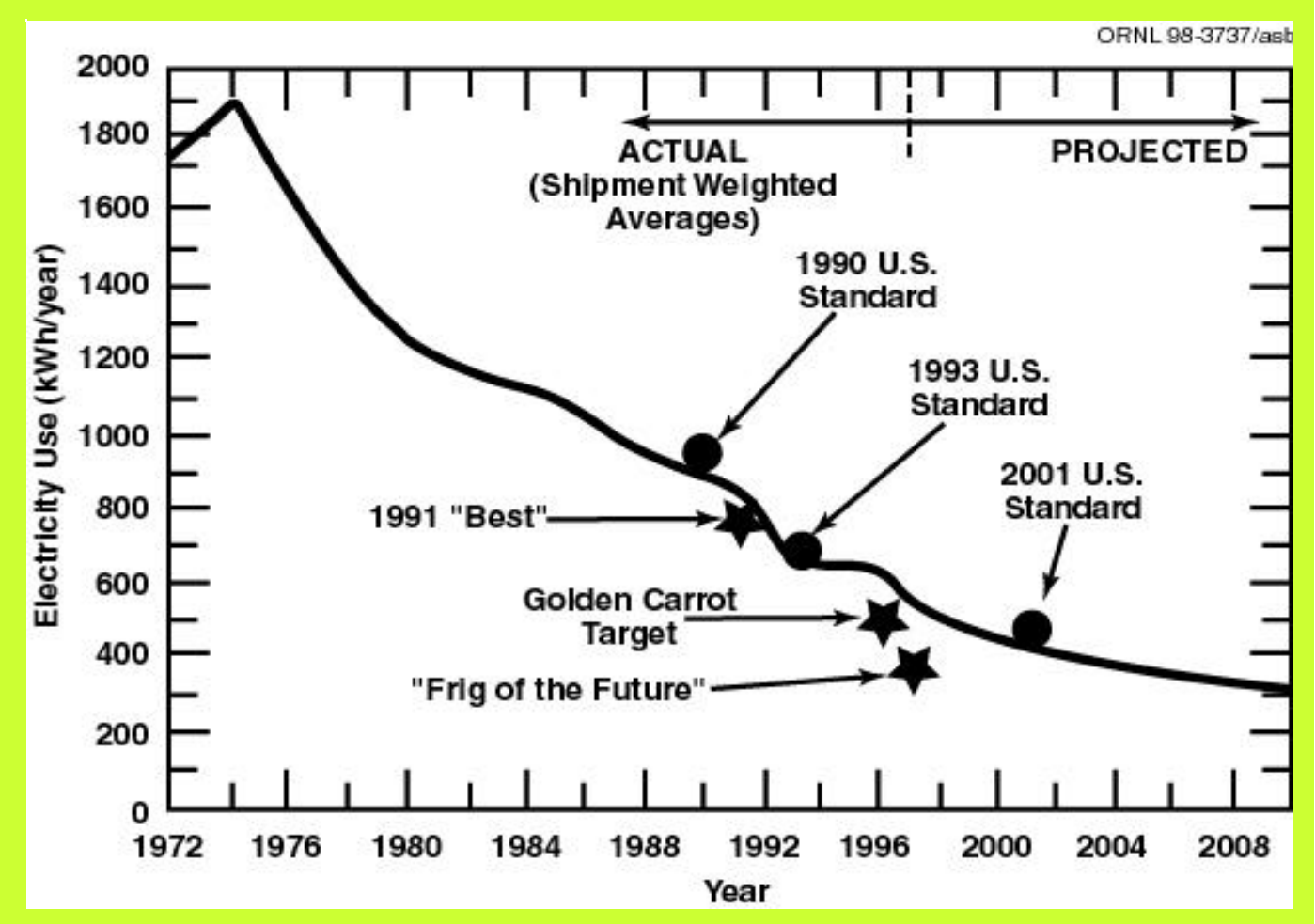
1979: 40 cents/kWh

- Increased Turbine Size
- R&D Advances
- Manufacturing Improvements

1999: 4 cents/kWh (unsubsidized)

NSP 107 MW Lake Benton wind farm

Building a Fridge to the 21st Century

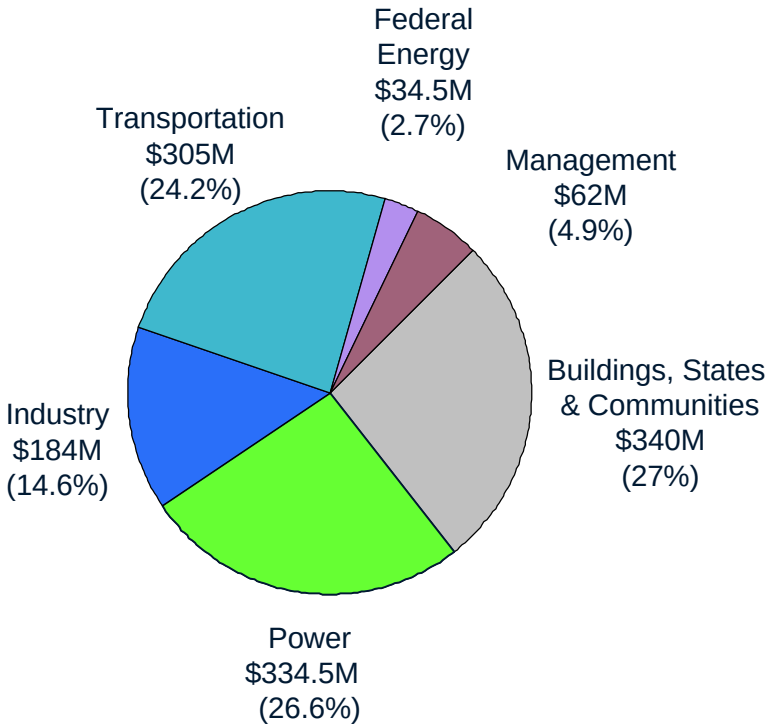


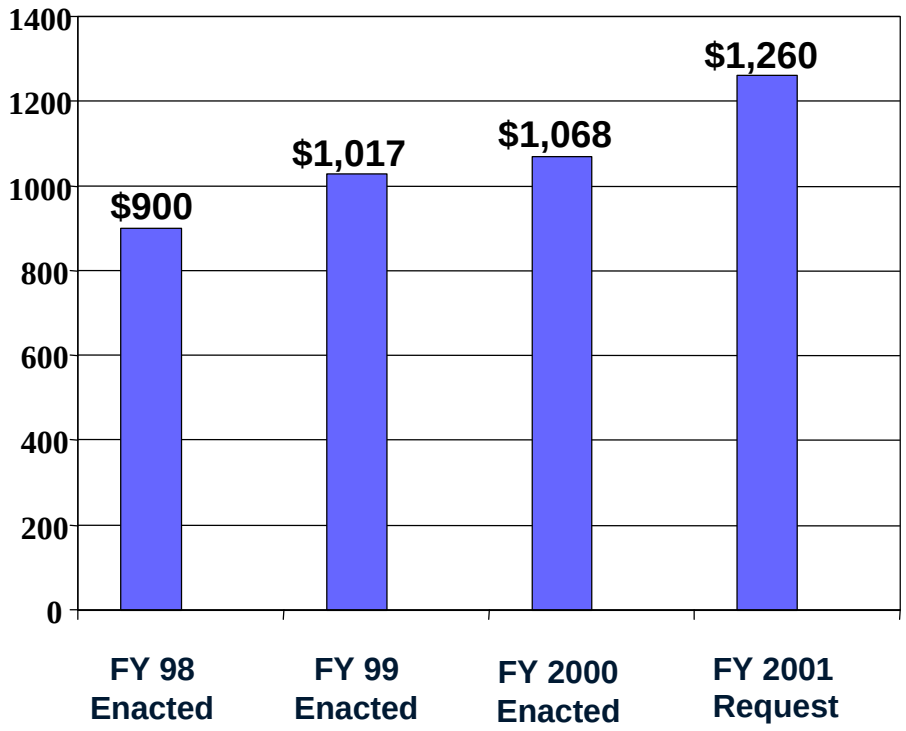
EERE Goals

- Buildings: By 2010, enable a 50% cut in new home energy use and 30% in new commercial buildings compared to 1996
- Industry: Reduce energy use per unit of output by 25% in 2010 compared to 1990
- Transportation: 80 mpg prototype cars by 2004; 35% light truck fuel efficiency improvement by 2002 (base year is 1999)
- Power: Triple non-hydro U.S. renewable capacity to 25,000 MW by 2010 (base year is 1996)
- Federal: By 2010, cut federal energy use by 35% from 1985 level and stimulate markets for efficiency & renewable technologies

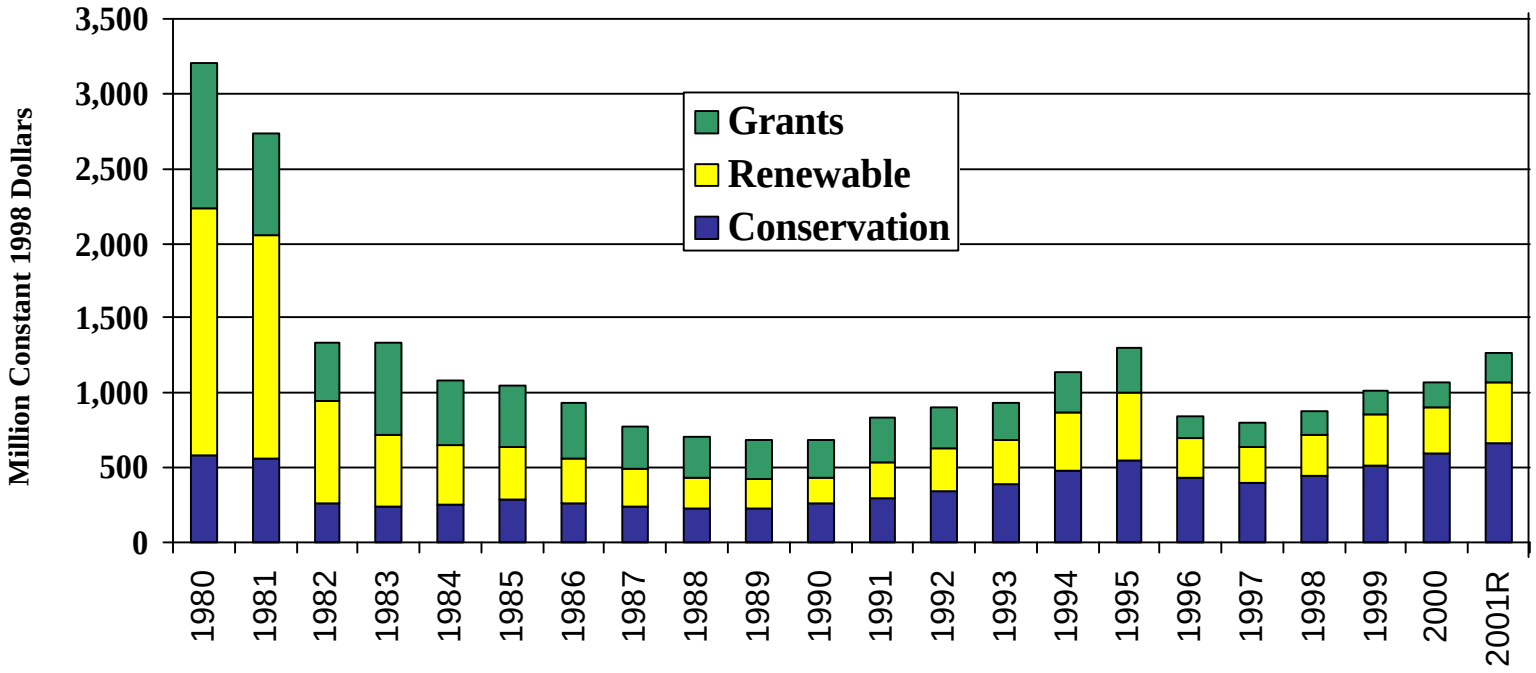
EERE Budget Request $1.26 Billion

($ millions)





EERE Budget History 1980-2001



Strength Through Science

FY 2001 Energy Efficiency and Renewable Energy Budget

SECTORS	FY 2000 Enacted	FY 2001 Request
Industrial Technologies	**175.2**	**184.0**
Transportation Technologies	**271.7**	**305.3**
Building Technology, States and Communities	**284.0**	**339.8**
{State and Community Grants}	{168.5}	{191.0}
Power Technologies	**255.0**	**334.5**
Federal Energy Management	**23.9**	**34.5**
Policy and Management	**59.1**	**61.8**
Use of Prior Year Balances	**(0.8)**	
Totals (sums do not add due to rounding)	**1,068.0**	**1,260.0**

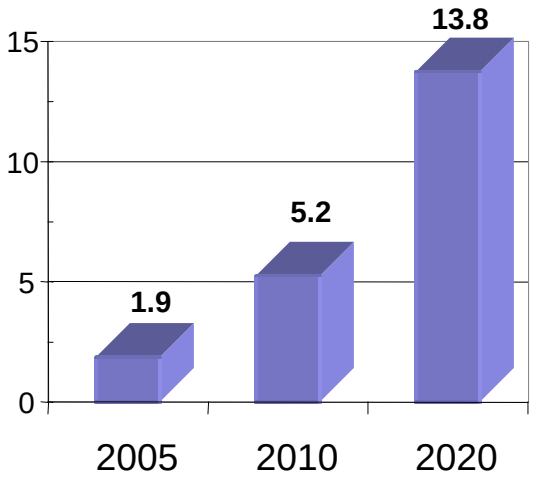
Key Changes

- Emphasize bioproducts and petroleum. Accelerate development of microturbines and recip.engines.
- Promote PNGV, fuel cells, and biofuels.
- Enhance weatherization and grants. Implement Buildings Cooling Heat and Power (BCHP), Appliance Standards, EnergySmart Schools.
- Accelerate biopower, wind, and grid reliability R&D.
- Increase project assistance for alternatively financed projects and implement federal energy E.O. (13123).
- Implement a Strategic Management System to improve EERE business processes.

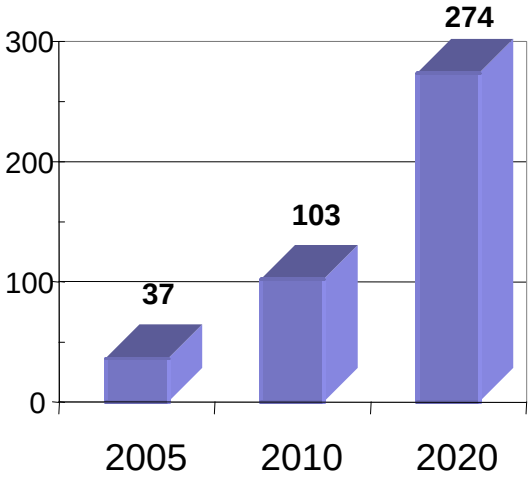
Cross-Cutting Initiatives: Bioenergy, Distributed Power/CHP, Transmission Reliability, Natural Gas, EnergySmart Schools, Million Solar Roofs, International , Wind Powering America, Geo Powering the West

EERE Annual Benefits - Current Portfolio*

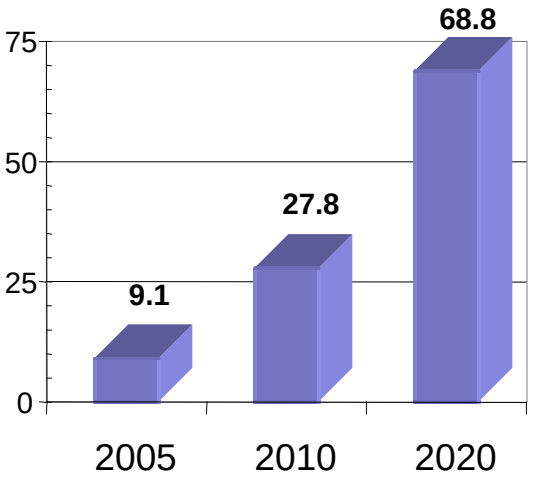
Energy Savings
(quads)



Carbon Reduction
(MMTCE)



Cost Savings
($ Billions)



* Benefits are annualized differences between EERE sector analyses and the Annual Energy Outlook '99 baseline

Improving EERE Management: A Continuing Process